

Clean Version of Claims 1 and 13

1. A computer network for managing operations within a feedlot having a plurality of animal pens each having a feedbunk, said computer network comprising:

a feedbunk reading computer system, associated with a feedbunk reading vehicle transportable to animal pens in said feedlot, said feedbunk reading computer system including mechanisms for receiving, storing and displaying animal health data and feed ration dispensed data;

the feedbunk reading computer system further including mechanisms for producing, storing and displaying feed ration delivery data, said feed ration delivery data specifying the assigned amount of feed ration to be delivered to the feedbunks associated with a plurality of animal pens along a feeding route within a predetermined time period, and said feed ration dispensed data indicating the actual amount of feed ration delivered to the feedbunks of said animal pens during the predetermined time period;

a plurality of feed delivery vehicles each being associated with a feed delivery vehicle computer system transportable to each said animal pen in said feedlot and having a storage mechanism for storing an assigned feed load, and a feed metering mechanism for measuring the actual amount of feed ration delivered to the feedbunks associated with said feeding route, and a data generation mechanism for producing said feed ration dispensed data indicative of the actual amount of feed ration delivered to said feedbunks, each said feed delivery vehicle computer system having mechanisms for receiving, storing and displaying said feed ration delivery data provided from said feedbunk reading computer system and a mechanism for receiving said feed ration dispensed data produced from said metering mechanism aboard said feed delivery vehicle;

a feedmill computer system, installed at a feedmill in said feedlot and having mechanisms for receiving, storing and displaying said feed ration delivery data produced from said feedbunk reading computer system;

a feedlot management computer system for receiving, storing and displaying said feed ration delivery data, said feed ration dispensed data and said animal health data, for use by a feedlot manager of said feedlot;

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a digital data communications system integrated with said feedlot computer network, for transferring digital data files among said feedbunk reading computer system, said feedmill computer system, said plurality of feed delivery vehicle computer systems, said feedlot management computer system and said feedmill computer system, wherein said digital data files include any of said feed ration delivery data, said animal health data and said feed ration dispensed data; and

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a database for maintaining information representative of a model of said feedlot and objects contained therein, each said feed delivery computer system including a mechanism for viewing at least a portion of said model maintained in said database, each feed delivery computer system also including a vehicle information acquisition mechanism for acquiring vehicle information regarding at least one of (i) the position of said feed delivery vehicle relative to a first prespecified coordinate referenced frame, and (ii) the state of operation of said feed delivery vehicle, and (iii) at least one of the position and the state of operation of said feed delivery vehicle represented within said model of said feedlot.

13. A computer-implemented method comprising the steps of:

(a) providing a feedlot computer network comprised of a feedbunk reading computer system, a mechanism for producing, storing and displaying feed ration deliver data, a feedmill computer system, and a feedlot management computer system;

(b) providing a feedlot vehicle associated with a portable computer system in communication with said feedlot computer network, said portable computer system using real-time virtual reality modeling and coordinate acquisition techniques in order to maintain a 3-D geometrical model of said feedlot and objects therein including said feedlot vehicle; and

(c) navigating said feedlot vehicle while viewing at least a portion of said feedlot model from within said feedlot vehicle.
